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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,098	01/28/2004	Isamu Kurokawa	WILL.0003	9705

7590

08/22/2005

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EXAMINER
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SONG, JASMINE

ART UNIT	PAPER NUMBER
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2188

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/765,098

Applicant(s)

KUROKAWA ET AL.

Examiner

Jasmine Song

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/28/04 &amp; 1/26/05</u> . | 6) <input type="checkbox"/> Other: _____  |

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## **Detailed Action**

### **Specification**

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### **Drawings**

2. The drawings filed on 01/28/04 have been approved by the Examiner.

### **Oath/Declaration**

3. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. 1.63.

### **Information Disclosure Statement**

4. The information disclosure statement (IDS) submitted on 01/28/04 and 01/26/05 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### **Claim Objections**

5. Claim 1 is objected to because of the following informalities:

In claim 1, lines 36, "said sort-in block group written" should be changed to --said specified sort-in block group written --.

Appropriate correction is required.

### **Claim Rejections - 35 USC § 112**

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the specified sort key value" in line 37. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-9 are also rejected because they are depended on the rejected claim 1.

8. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language "different prescribed purposes" is not clear or distinct. This language is not defined in either the actual claim language or the specification. It is not clear as to what type of the purposes there may be, it is not possible from either the specification or the claims to determine the scope of this language or the determine the meters and bounds of the claims.

### **Claim Rejections - 35 USC § 103**

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable by Fushimi., US Patent 6,035,296, in view of Graefe., US 6,105,024.

Regarding claim 10, Fushimi teaches that a storage system (it is taught as a database processing system, col.15, lines 16-18), connectable via a communication channel (it is taught as one of switches such as 25) to one or more host devices (Fig.2, CPU 7), comprising an external storage device (it is taught as disk devices 8) which stores data for input from and output to said host devices (col.1, lines 33-38 and lines 44-46), and a storage control device (Fig.2, controller 2) which controls transfer of said data between said host devices and said external storage device, wherein:

Said storage control device has shared memory (it is taught as storage devices 45-48; see Fig.17A-D) which can be used for different prescribed purposes and a control portion (it is taught as data processing control unit 21 and 22) which is connected to said host devices, said external storage device, and said shared memory, and controls data input to and output from said external storage device, said host devices, and said shared memory (see Fig.2);

Said control portion has one or more processors (it is taught as sort processors 41-44; see Fig.15) which receive sort processing execution instructions from said host devices and perform sort processing (col.32, lines 15-17); and,

Said one or more processors perform sort processing in which a first storage area is selected as a sort-in-area (Fig.1, it is taught as data D1 and D2 needed to be sort and the multiple-input control unit), a second storage area is selected as a sort-work area (it is taught as sort processing unit 4 as shown in fig.1), a third storage area is selected as a sort-out area (it is taught as sorted data D9 and D10 and the multiple-output control unit), the data of said sort-in area is sorted using said sort-work area (data D1 and D2 is sorted using sort processing unit) , and the sorted data is stored in said sort-out area (the sorted data D9 and D10 is stored as JOB 0 and JOB 1).

Fushimi does not teach that the first, second and third storage area are in the external storage device, that is, Fushimi does not teach an external sort.

However, Graefe et al teach an external sorting of the input records (col.1, first paragraph).

It would have been obvious to the ordinary skill in the art at the time the invention was made to utilize the teachings of Graefe into Fushimi's data processing system such as teaching an external sorting because the external sorting designed to efficiently handle variable-length record during run formation (col.1, first paragraph).

According, one of ordinary skill in the art would have recognized this and concluded that they are from the same field of endeavor. This would have motivated

one of ordinary skill in the art to implement the above combination for the advantages set forth above.

### **Allowable Subject Matter**

11. Claims 2-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fushimi	US 6035296
Graefe et al	US6105024
Fushimi	US 5903780
Fushimi	US 6182071 B1
Meck et al	US 6021407
Meck et al	US5813004
Hiyoshi	US 6601067 B1
Yamashita	US 5659733

13. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111 (c).

14. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine Song whose telephone number is 571-272-4213. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Jasmine Song



Patent Examiner

August 10, 2005

FOR

Mano Padmanabhan

Supervisory Patent Examiner

Technology Center 2100



GARY PORTKA  
PRIMARY EXAMINER